

WHAT IS CLAIMED IS:

1. A computer system comprising:
 - a first computer that receives access requests to files from at least
 - 5 one client computer;
 - a first storage device system that is connected to the first computer and stores file management information;
 - a second computer that receives access requests to data from the first computer;
 - 10 a second storage device system that is connected to the second computer and stores file data; and
 - a network that connects to the at least one client computer, the first computer and the second computer, wherein,
 - upon receiving file data from the at least one client computer, the
 - 15 first computer assigns first identification information to the file data, and stores the file data in the second storage device system through the second computer,
 - the first storage device system stores the first identification information assigned to the file data by the first computer, and a file name
 - 20 of a file having the file data designated by the at least one client computer,
 - upon receiving a write request to the file from the at least one client computer, the first computer assigns to write data received from the at least one client computer with the write request second identification

information different from the first identification information assigned to the file data of the file stored in the second storage device system,

the first computer stores the write data, through the second computer, in a storage region within the second storage device system that
5 is different from a storage region that stores the file data already stored in the second storage device system, and

the first computer correlates the second identification information to the filename of the file and to the first identification information and stores the second identification information in the first storage device
10 system.

2. A computer system according to claim 1, wherein the second storage device system includes file containers that store file data, wherein the write data is stored in a file container, which is
15 different from a file container that stores the file data of the file.

3. A computer system according to claim 1, further comprising a third computer that receives an access request to a file from the at least one client computer, converts the access request received into an access
20 request according to a protocol that is used by the first computer, and transmits the access request converted to the first computer.

4. A computer system according to claim 1, wherein

the second storage device system further includes view data having at least one pair of a file name of a file and identification information of the file,

the first storage device system further includes view management
5 information including storage location of the view data, and

the first computer, upon receiving from the at least one client computer a view data read request, reads the view data from the second storage device system through the second computer based on the view management information stored in the first storage device system.

10

5. A computer system according to claim 4, wherein

the second storage device system stores the view data correlated with time information, and

the view data includes a pair of a file name of a file corresponding to
15 file data and identification information of the file stored in the second storage device system at a time indicated by the time information correlated with the view data.

6. A computer system according to claim 5, wherein

20 the first computer, upon receiving a creation request to create a new file from the at least one client computer, stores in the second storage device system through the second computer a pair of a file name of the new file created and identification information of the new file and view data having a pair of a file name of another file and identification

information of the other file stored in the second storage device system, correlated with time information indicating the time when the new file is created.

5 7. A computer system according to claim 5, wherein
the first computer, upon receiving the write request, stores in the
second storage device system through the second computer view data
including a pair of the first identification information and the file name
and a pair of the second identification information and the file name
10 together with time information indicating the time when the write data is
written in the second storage device system.

8. A computer system according to claim 8, wherein
the first computer, upon receiving a view data read request
15 including time information from the at least one client computer, selects
time information among the time information correlated to the view data
which is older than but latest to the time information included in the view
data read request, reads from the second storage device system through
the second computer view data correlated to the time information selected,
20 and transmits the view data read to the client computer.

9. A computer system according to claim 1, further comprising a
third computer that checks if a client computer has an access right to
access files, wherein

the first computer, upon receiving from the at least one client computer a file access request to access a file, transmits an access right check request to the third computer, and decides whether or not to execute an access processing for accessing the file according to the file access request sent from the client computer depending on an access right check result received from the third computer.

10. A program for executing a file access processing according to a file access request received from at least one client computer, the program being executed by a computer system including a first computer that receives access requests to files from the at least one client computer, a first storage device system that is connected to the first computer and stores file management information, a second computer that receives an access request to data from the first computer, a second storage device system that is connected to the second computer and stores file data, and a network that connects to the at least one client computer, the first computer and the second computer, the program comprising:

a code for assigning by the first computer, upon receiving file data from the at least one client computer, first identification information to the file data;

a code for storing by the second computer the file data received by the first computer from the at least one client computer in the second storage device system;

a code for storing by the first computer in the first storage device system the first identification information assigned to the file data by the first computer, and a file name of a file having the file data designated by the at least one client computer;

- 5 a code for receiving by the first computer a write request to the file from the at least one client computer;

a code for assigning by the first computer to write data received from the at least one client computer with the write request second identification information different from the first identification

- 10 information assigned to the file data of the file stored in the second storage device system;

a code for storing by the first computer the write data in the second storage device system; and

- a code for correlating by the first computer the second identification
15 information to the filename of the file and to the first identification information and storing the second identification information in the first storage device system.

11. A program according to claim 10, wherein
20 the second storage device system includes file containers that store file data, wherein the code for storing the write data in the second storage device system includes a code for storing the write data in a file container, which is different from a file container that stores the file data of the file.

12. A program according to claim 10, wherein the computer system further includes a third computer connected to the network, wherein the program includes a code for receiving by the third computer an access request to a file from the at least one client computer, converting
5 the access request received into an access request according to a protocol that is used by the first computer, and transmitting the access request converted to the first computer.

13. A program according to claim 10, further comprising:
10 a code for storing by the second storage device system view data having at least one pair of a file name of a file and identification information of the file;
a code for storing by the first storage device system view management information including storage location of the view data; and
15 a code for receiving by the first computer from the at least one client computer a view data read request; and
a code for reading by the first computer the view data from the second storage device system through the second computer based on the view management information stored in the first storage device system.

20

14. A program according to claim 13, wherein
the code for storing by the second storage device system the view data includes a code for correlating the view data with time information, and the view data includes a pair of a file name of a file corresponding to

file data and identification information of the file stored in the second storage device system at a time indicated by the time information correlated with the view data.

5 15. A program according to claim 14, further comprising a code
for, upon receiving a creation request to create a new file from the at least
one client computer, storing by the first computer in the second storage
device system through the second computer a pair of a file name of the
new file created and identification information of the new file and view
10 data having a pair of a file name of another file and identification
information of the other file stored in the second storage device system,
correlated with time information indicating the time when the new file is
created.

15 16. A program according to claim 14, further comprising a code
for, upon receiving the write request, storing by the first computer in the
second storage device system through the second computer view data
including a pair of the first identification information and the file name
and a pair of the second identification information and the file name
20 together with time information indicating the time when the write data is
written in the second storage device system.

 17. A program according to claim 16, further comprising a code
for, upon receiving a view data read request including time information

from the at least one client computer, selecting by the first computer time information among the time information correlated to the view data which is older than but latest to the time information included in the view data read request, reading from the second storage device system through the
5 second computer view data correlated to the time information selected, and transmitting the view data read to the at least one client computer.

18. A program according to claim 10, wherein the computer system further includes a third computer that checks if the at least one
10 client computer has an access right to access files, and further comprising a code for, upon receiving from the at least one client computer a file access request to access a file, transmitting by the first computer an access right check request to the third computer, and deciding whether or not to execute an access processing for accessing the file according to the file
15 access request sent from the at least one client computer depending on an access right check result received from the third computer.

19. A file access method executed by a computer system, the computer system including a first computer that receives access requests
20 to files from at least one client computer, a first storage device system that is connected to the first computer and stores file management information, a second computer that receives an access request to data from the first computer, a second storage device system that is connected to the second computer and stores file data, and a network that connects to the at least

one client computer, the first computer and the second computer, wherein the second storage device system includes file containers for storing file data,

the method comprising the steps of:

5 receiving by the first computer a write request to a file from the at least one client computer;

 assigning by the first computer to write data received from the at least one client computer with the write request second identification information different from first identification information assigned by the
10 first computer to file data of the file stored in the second storage device system;

 storing by the second computer the write data in a file container different from a file container that stores the file data of the file; and

 correlating by the first computer the second identification
15 information to the filename of the file designated by the at least one client computer and to the first identification information and storing the second identification information in the first storage device system.

20. A file access method according to claim 19, wherein the
20 computer system further includes a third computer to execute protocol conversion, and further comprising a step of receiving by the third computer an access request to a file from at least one client computer, and a step for converting the access request received into an access request

according to a protocol that is used by the first computer, and transmitting the access request converted to the first computer.

21. A file access method comprising the steps of:
- 5 a first computer that receives file data from at least one client computer;
- a first storage device system that is connected to the first computer and stores file management information;
- a second computer that receives an access request to file data from
- 10 the first computer;
- a second storage device system that is connected to the second computer and stores the file data; and
- a network that is connected to the at least one client computer, the first computer and the second computer, the method comprising the steps
- 15 of:
- receiving by the first computer file data from the at least one client computer;
- assigning by the first computer first identification information to the file data;
- 20 storing by the first computer in the first storage device system the first identification information and a file name of a file having the file data designated by the at least one client computer; and
- storing by the second computer the file data in the second storage device system.

22. A file access method according to claim 21, further comprising the steps of:

receiving by the first computer a write request to write data in the
5 file data from the at least one client computer;

assigning by the first computer to the data second identification information different from the first identification information assigned to the file data of the file stored in the second storage device system;

storing by the first computer the data in the second storage device
10 system;

correlating by the first computer the second identification information to the filename of the file and to the first identification information; and

storing by the first computer the second identification information
15 in the first storage device system.